MOTOR TORQUE VARIATION COMPENSATION

Abstract of the Disclosure

Method and apparatus for compensating variations in motor torque in a control system that employs a motor to accelerate a control object, such as a data transducing head in a data storage device. During acceleration of the control object, a plurality of distances successively traveled by the control object are measured, and the measured distances are combined to compensate for said variations in motor torque. Preferably, a constant control input is applied to accelerate the control object at a constant rate of acceleration less than a maximum rate of acceleration that can be obtained by the motor. A coarse adjustment routine is preferably applied to arrive at a first compensation value that compensates for said variations at a first resolution, after which a fine adjustment routine is performed using the first compensation value to arrive at the final compensation value at a second resolution greater than the first resolution.